REMARKS

Favorable reconsideration of the present application is respectfully requested.

Based upon the rejection under 35 U.S.C. § 112, Claims 5 and 23 have been amended for clarity. This rejection is therefore believed to be moot.

Applicants wish to thank Examiner Ferguson for the courtesy of an interview on August 8, 2006 at which time the outstanding rejections were discussed. Based upon this discussion, the Examiner indicated that he would reconsider the outstanding prior art rejections, and would contact the undersigned attorney if these rejections were to be maintained.

Briefly, as was discussed during the interview, the claimed invention is based upon the recognition of unexpected results flowing from the specific mathematical relationships set forth in the claims. For example, Claim 1 is directed to a coated body for the members of an electronic device, which comprises a substrate covered on the surface side and back side with respective thermal radiative coatings, each having a thermal radiation property, wherein the integrated emissivities at wavelengths of 4.5 to 15.4 microns, and at 100 °C, satisfy the relationship: $a \times b$ is ≥ 0.42, wherein a is the infrared integrated emissivity from the surface side of the substrate, and b is the infrared integrated emissivity from the back side of the substrate. Criticality for the specific mathematical relationship set forth in the claim is evident from the Tables, e.g., Table 1 on page 81 of the specification (alternatively, see Table 3). As is there shown, the Comparative Examples 1-2, in which the relationship $a \times b$ is less than 0.42, have a low thermal radiation property (as expressed by $\Delta T1$), leading to a poor relative evaluation. On the other hand, the remaining samples have a value of $a \times b$ which falls within the claimed range and which results in a significantly higher thermal radiation property as expressed by $\Delta T1$ (see, generally, pages 79-81 of the specification).

Similarly, Claim 3 recites a coated body wherein at least one of the respective thermal radiative coatings contains a blackening additive and satisfies the specific mathematical relationship: $(X - 3) \times (Y - 0.5) \geq 15$, wherein X represents the mass percentage of the blackening additive contained in the thermal radiative coating and Y represents the thickness in microns of the coating. Again, evidence of criticality for this relationship is found in the Tables. Specifically, the claimed relationship is expressed as value "P" in the Tables. For example Comparative Examples 1 and 2 in Table 1 have a P value less than 15 and exhibit a poor thermal radiation property as evaluated by $\Delta T1$. The other examples, on the other hand, have a P value within the claimed range and a high thermal radiation property.

Claim 20 recites a coated body for the members of an electronic device, wherein a substrate is covered on both the surface side and back side with coatings having integrated emissivities at the specified wavelengths and temperature which correspond to the relationships of equations 4 and 5 set forth in Claim 20. In this case, evidence of criticality for the specific mathematical relationships set forth in Claim 20 is found in Table 7 on page 97 of the specification. For example, the coated bodies 1-12 having a high "Q" value based on equation 4 of Claim 20 exhibit an excellent cooling property as evaluated by $\Delta T2$, and Examples 1-12 according to the invention having a high "R" value based on equation 5 of Claim 20 have a high thermal radiation property as evaluated by $\Delta T1$, as compared with the Comparative Examples 13-19 (see, generally, pages 94-99 of the specification).

Claim 21 recites a specific mathematical relationship between the percentage mass of blackening additive and the thickness of the coating. In this case, equation 6 requires that this relationship be equal to or greater than 3. As is noted on page 99 of the specification, sample 13 in Table 7 does not satisfy this relationship and has a poor thermal radiation property as expressed by $\Delta T1$. Thus, evidence of criticality for the claimed relationships is set forth in the specification.

Claims 1, 3-5, 7, 10, 12, 15-18, 20-23, 25, 28, 30, 32 and 33-36 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. patent 6,926,861 (Hirayama et al.). According to this rejection because Hirayama et al "discloses a coated body comprising a substrate sandwiched between thermal radiative coatings, the integrated emissivities in equations 1-3 are inherent features."

Hirayama et al is directed to an isostatic molding method for ceramic powders or metal powders in which a starting powder 23 is held between side plates 27 and 29, and upper and lower plates 35 and 37, and is compacted by the pressure of the fluid 53. The plates are formed of a metal such as steel (column 4, lines 58-60).

There is no description in Hirayama et al of the emissivities of the plates 35-37, nor of any relationship of such emissivities. Instead, it was the position of the Office Action that the integrated emissivities of equation 1 inherently falls within the claimed range. However, as was discussed during the interview, there is no basis for concluding that the claimed critical emissivity of Claim 1 is inherent in Hirayama et al. A rejection based upon inherency requires that the Examiner provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art. M.P.E.P. § 2112 (IV). There is no evidence of record that the claimed emissivity relationship of Claim 1 is necessarily present for the plates 35 and 37 of Hirayasma et al.

Equation 2 (Claim 3) is directed to the coating mass and thickness, and not its emissivity. In any case, there is no evidence of record that the plates of Hirayama et al inherently satisfy this critical relationship.

The Office Action does not even allege that the relationships of Claims 20 and 21 (equations 4-6) are inherently taught by Hirayama et al.

It is Applicants' understanding from the result of the interview that the rejection based upon Hirayama et al. will be withdrawn unless the Examiner is able to find a basis in the reference for the inherency of the claimed relationships.

The above remarks also apply to the rejection of Claims 1, 3-18 and 20-26 based upon U.S. patent 7,009,284 (Nakase et al) As was discussed during the interview, Nakase et al discloses a semiconductor element having a pair of insulation substrates sandwiching the semiconductor element, but that Nakase et al provides no disclosure of the emissivities of the insulation substrates, or of the characteristics of a blackening additive. Thus, here again there is no basis for the assertion that the claimed relationships are inherently present therein. It is again Applicants' understanding from the interview that this rejection would be withdrawn unless the Examiner is able to find support for any inherency.

Since all of the independent claims are believed to be allowable, it is respectfully requested that the nonelected Claims 19 and 37 be included in any patent issuing from the present application.

Applicants believe that the present application is in condition for allowance and respectfully solicit an early notice of allowability.

Respectfully submitted,

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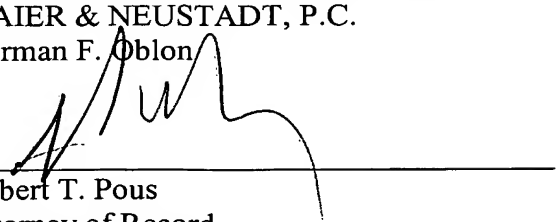

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